

CLAIMS

1. A communication method wherein:
a symbol of one channel is transmitted by means of a
5 first carrier group, and
symbols of a plurality of channels modulated by means
of a different modulation method are multiplexed and
transmitted by means of a second carrier group.
- 10 2. A communication method wherein:
information on propagation path conditions estimated
by a communicating party is received;
a symbol is transmitted by means of a first carrier group
to a first communicating party; and
15 a symbol is transmitted by means of a second carrier
group to a communicating party whose propagation path
conditions are worse than those of said first communicating
party.
- 20 3. The communication method according to claim 1, wherein
a symbol transmitted by means of a first carrier group has
a higher degree of importance in communication than a symbol
transmitted by means of a second carrier group.
- 25 4. The communication method according to claim 1, wherein:
first data is transmitted by means of a first carrier
group;
a difference between second data and first data is

generated; and

said difference is transmitted by means of a second carrier group.

5 5. The communication method according to claim 1, wherein carriers of a first carrier group and second carrier group are arranged orthogonally.

6. The communication method according to claim 1, wherein:
10 a symbol of one channel is transmitted by means of a first carrier group at the start of communication; and after information on propagation path conditions estimated by a communicating party is received, symbols are transmitted by means of the first carrier group and a second
15 carrier group.

7. The communication method according to claim 2, wherein:
a known symbol is transmitted at the start of communication; and
20 information on propagation path conditions estimated by a communicating party using said known symbol is received.

8. A transmitting apparatus comprising:
a first modulation section that modulates a signal of
25 a first channel and generates a first symbol;
a second modulation section that modulates a signal of a second channel and generates a second symbol;
a first transmitting section that transmits the first

symbol by means of a first carrier group; and
a second transmitting section that multiplexes said first symbol and said second symbol and transmits those multiplexed symbols by means of a second carrier group.

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9. The transmitting apparatus according to claim 8, further comprising:

a receiving section that receives information on propagation path conditions estimated by a communicating party; and

a determination section that determines transmission of a symbol by means of a first transmitting section to a first communicating party and transmission of a symbol by means of a second transmitting section to a communicating party whose propagation path conditions are worse than those of said first communicating party based on propagation path conditions of a plurality of communicating parties.

10. The transmitting apparatus according to claim 8, wherein said first transmitting section transmits a symbol of a higher degree of importance in communication than a symbol transmitted by means of said second transmitting apparatus.

11. The transmitting apparatus according to claim 8, wherein said first transmitting section and said second transmitting section transmit symbols in an arrangement whereby carriers are made orthogonal.

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12. The transmitting apparatus according to claim 8, wherein:

said first transmitting section transmits a symbol of a first channel by means of a first carrier group at the start
5 of communication; and

said second transmitting section transmits a symbol by means of a second carrier group after information on propagation path conditions estimated by a communicating party is received.

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13. The transmitting apparatus according to claim 8, wherein:

said first transmitting section transmits a known symbol at the start of communication; and

said receiving section receives information on
15 propagation path conditions estimated by a communicating party using said known symbol.

14. A receiving apparatus comprising:

a first receiving section that receives by means of a
20 first carrier group a radio signal in which a symbol of one channel is modulated;

a second receiving section that receives by means of a second carrier group a radio signal in which symbols of a plurality of channels modulated by means of a different
25 modulation method are multiplexed;

a first demodulation section that demodulates a signal received by means of a first carrier;

a second demodulation section that demodulates a signal

received by means of a second carrier; and

a separation section that separates a signal demodulated by means of said second demodulation section on a channel-by-channel basis.

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15. The receiving apparatus according to claim 14, further comprising:

an estimation section that estimates propagation path conditions based on a known symbol of a radio signal received
10 by a first receiving section; and

a transmitting section that transmits information on propagation path conditions estimated by said estimation section.

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